

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of

X. Tang et al.

Serial No.: 10/754,176

Group Art Unit: 2879

Filed: January 9, 2004

Examiner: K.J. Quarterman

For: FIELD EMISSION BACKLIGHT FOR LIQUID CRYSTAL TELEVISIONS

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

DECLARATION UNDER 37 C.F.R. § 1.131

1. I, Xinhe Tang, do declare an state that I am an inventor of the subject matter claimed in the above-referenced patent application.

2. I have reviewed the specification and claims of the above-referenced patent application.

3. I have first hand knowledge that the subject matter of the claimed invention was reduced to practice prior to May 13, 2003.

a. Electrovac AG had a device, referenced as sample no. V171002a, prepared comprising a cathode of carbon nanofibers grown in nanofiber clusters on an aluminum-coated glass substrate, according to the method of fabrication described in the above-referenced patent application. The device was fabricated to have a space between the cathode

and an anode, such that an electric potential applied between the cathode and anode caused electron emission from the cathode to the anode. The copy attached as Exhibit A is a true and accurate copy of a report of a test completed on sample no. V171002a, which emitted light on October 17, 2002, which corroborates a successful test and reduction to practice of the claimed invention.

b. Electrovac AG had another device prepared and tested on November 20, 2002. I was present at the successful testing of the field emissive device, referenced as sample no. V181102b-2, which successfully emitted light over 100% of the area of the cathode. This test is reported in the document attached as Exhibit B and Exhibit C. Exhibit B is a true and accurate copy, which shows the date of the first test, on November 20, 2002. Exhibit C is a report of the test including images of the light emission of the field emissive device with a 100% emitting area during the test and a graph of current density versus field strength. Also, Exhibit C first reports additional test results conducted by LGPhilips laboratory that achieved light emission at very low field strengths of 1.5-2 V/ μ m.

4. I declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true, and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under §1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application and any patent issuing thereon.

Dated: June 13, 2006


Xinhe Tang